

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A computer system to virtually organize content of a plurality of disparate content repositories, ~~folders content organizing structures~~ of the plurality of disparate content repositories, work items of a plurality of disparate workflow systems, and ~~queues work organizing structures~~ of the plurality of disparate workflow systems, comprising:

a processing unit; and

a memory comprising:

a virtual repository comprising at least one virtual folder a plurality of nodes, said at least one virtual folder virtually organizing a first work item of a first queue of a first workflow system of the plurality of disparate workflow systems, the first queue of the first workflow system, a second work item of a second workflow system of the plurality of disparate workflow systems, a second queue of the second workflow system, a first content of a first content repository of the plurality of disparate content repositories, a second content of a second content repository of the plurality of disparate content repositories, a first folder of the first content repository, and a second folder of the second content repository, via a plurality of links comprising a first link, a second link, a third link, a fourth link, a fifth link, a sixth link, a seventh link and an eighth link;

wherein the first workflow system, the second workflow system, the first content repository and the second content repository are distributed and disparate;

the [[a]] first link node of the plurality of nodes being to [[a]] the first work item of a first workflow system of the plurality of workflow systems, [[a]] the second link node of the plurality of nodes being linking to [[a]] the second work item of a second

~~workflow system of the plurality of workflow systems, [[a]] the third link node of the plurality of nodes being to [[a]] the first queue work organizing structure of the first workflow system, [[a]] the fourth link node of the plurality of nodes being to [[a]] the second queue work organizing structure of the second workflow system, [[a]] the fifth link node of the plurality of nodes being to [[a]] the first content of a first content repository of said plurality of disparate content repositories, [[a]] the sixth link node of the plurality of nodes being to [[a]] the second content of a second content repository of said plurality of disparate content repositories, [[a]] the seventh link node of the plurality of nodes being to [[a]] the first folder content organizing structure of the first content repository, and [[an]] the eighth link node of the plurality of nodes being to [[a]] the second folder content organizing structure of the second content repository, wherein the work organizing structure of the first workflow system is one of: a queue and a task list, wherein the work organizing structure of the second workflow system is one of: another queue and another task list, wherein the content organizing structure of the first content repository is a folder, wherein the content organizing structure of the second content repository is another folder, the virtual repository also comprising at least one virtual folder, wherein each said at least one virtual folder is also a node of said plurality of nodes, wherein said first node, said second node, said third node, said fourth node, said fifth node, said sixth node, said seventh node and said eighth node are organized via said at least one virtual folder; and~~

an application programming interface (API), executable by said processing unit, to interface with a software application to provide access to the virtual repository, wherein said at least one virtual folder is accessed via said API;

wherein said first work item of said first workflow system is accessed via said first link and said API node, said second work item of said second workflow system is accessed via said second link and said API node, said first queue work organizing structure of said first workflow system is accessed via said third link and said API node, said second queue work organizing structure of said second workflow system is accessed via said fourth link and said API node, said first content of said first content repository is accessed via said fifth link and said API node, said second content of said second content repository is accessed via said

sixth link and said API node, said first folder content organizing structure of said first content repository is accessed via said seventh link and said API node, and said second folder content organizing structure of said second content repository is accessed via said eighth link and said API node.

Claim 2 (currently amended): The computer system of claim 1 wherein creation of the virtual repository does not replicate any of the content of the first and second content repositories, folders of the first and second content repositories content organizing structures, work items of the first and second workflow systems, and queues of the first and second workflow systems work organizing structures; and wherein the creation of the virtual repository does not impact any of the content of the first and second content repositories, folders of the first and second content repositories content organizing structures, work items of the first and second workflow systems, and queues of the first and second workflow systems work organizing structures.

Claim 3 (currently amended): The computer system of claim 1 wherein creation of the virtual repository does not impact any of an existing organization of any of the content of the first and second content repositories, folders of the first and second content repositories content organizing structures, work items of the first and second workflow systems, and queues of the first and second workflow systems work organizing structures,

wherein creation of the virtual repository does not impact any functions of any of the content of the first and second content repositories, folders of the first and second content repositories content organizing structures, work items of the first and second workflow systems, and queues of the first and second workflow systems work organizing structures,

wherein creation of the virtual repository does not impact any indexing of any of the content of the first and second content repositories, folders of the first and second content repositories content organizing structures, work items of the first and second workflow systems, and queues of the first and second workflow systems work organizing structures,
and

wherein creation of the virtual repository does not impact any security of any of the content of the first and second content repositories, folders of the first and second content repositories content organizing structures, work items of the first and second workflow systems, and queues of the first and second workflow systems ~~work organizing structures.~~

Claim 4 (previously presented): The computer system of claim 1 wherein the API is in a format selected from the group consisting of Java, Component Object Model (COM), Simple Object Protocol (SOAP) Web Services, Representational State Transfer (REST) Web Services, and Web Development Components.

Claim 5 (previously presented): The computer system of claim 1 further comprising at least one of a graphical user interface and a web-based interface.

Claim 6 (currently amended): The computer system of claim 1 wherein said at least one virtual folder is at least one node, respectively, and the first, second, third, fourth, fifth, sixth, seventh and eighth links are also nodes, thereby providing a plurality of nodes of the virtual repository, wherein the plurality of nodes are arranged in a parent-child hierarchy.

Claim 7 (currently amended): The computer system of claim 1 ~~wherein the fifth node is of a type of a link to a repository content, the sixth node is of the type of the link to the repository content, the seventh node is of the type of a link to a repository folder, the eighth node is of the type of the link to the repository folder, the first node is of the type of a link to a workflow system work item, the second node is of the type of the link to the workflow system work item, the third node is of the type of a link to a workflow system work queue, the fourth node is of the type of the link to the workflow system work queue, wherein the virtual repository comprises:~~

~~wherein said at least one virtual folder is at least one ninth node, respectively, said at least one virtual folder further comprises: said at least one virtual folder~~ also virtually organizes:

~~a tenth node being of the type of a link to a third folder populated by saved repository search via a tenth link,~~

~~an eleventh node being of a type of a link to a fourth folder populated by a workflow system search via an eleventh link, and~~

~~a twelfth node being of a type of a link to an external resource via a URL.~~

Claim 8 (currently amended): The computer system of claim 1 wherein the first, second, third, fourth, fifth, sixth, seventh and eighth links are nodes of the virtual repository that contain meta-data properties in addition to the meta-data maintained for the first work item in the first workflow system, the second work item in the second workflow system, the first queue in the first workflow system, the second queue in the second workflow system, the first content in the first content repository, the second content in the second content repository, the first folder in the first content repository and the second folder in the second content repository in their respective underlying said content repositories and said workflow systems, wherein the meta-data properties of the nodes describe a use of the first work item, second work item, first queue, second queue, first content, second content, first folder and second folder content organizing structures, work items and work organizing structures of the virtual repository.

Claim 9 (currently amended): The computer system of claim 1 wherein the first, second, third, fourth, fifth, sixth, seventh and eighth links are nodes of the virtual repository, wherein the first content repository of the plurality of disparate content repositories has first-content-repository access control rules to the first content and the first folder content organizing structure, wherein the first workflow system of the plurality of disparate workflow systems has first-workflow access control rules to the first work item and the first queue work organizing structure, wherein the nodes of the virtual repository comprise supplemental access control rules of the virtual repository, wherein the supplemental access control rules are applied to the nodes within the virtual repository, wherein the supplemental access control rules describe supplemental security constraints to the first content and the first folder

~~content organizing structures~~ of the first content repository, wherein the supplemental access control rules describe security constraints to the first work item ~~items~~ and first queue ~~work organizing structures~~ of the first workflow system,

wherein the first content of the first content repository is accessed in accordance with the supplemental access control rules of the virtual repository and the first-content-repository access control rules of the first content repository,

wherein the first work item of the first workflow system is accessed in accordance with the supplemental access control rules of the virtual repository and the first-workflow access control rules of the first workflow system.

Claim 10 (previously presented): The computer system of claim 1 wherein the virtual repository is exported to an XML representation and imported from the same XML representation.

Claim 11 (previously presented): The computer system of claim 1 further comprising a middleware platform to abstract a particular content repository of the plurality of content repositories of the virtual repository, and another middleware platform to abstract a particular workflow system of the plurality of workflow systems of the virtual repository.

Claim 12 (currently amended): The computer system of claim 1 further comprising adaptors to provide access to the first and second ~~specific~~ content repositories and the first and second workflow systems.

Claim 13 (previously presented): The computer system of claim 1 further comprising an adaptor toolkit to build interfaces to future developed content repositories and workflow systems.

Claims 14-23 (canceled)

Claim 24 (currently amended): A computer system to create rich relationships between content ~~[[,]]~~ and folders content organizing structures of a plurality of content repositories, and work items and queues work organizing structures of that exist in a plurality of content repositories, a plurality of workflow systems, and at least one other external information source, comprising:

a processing unit; and

a memory comprising:

~~a module comprising~~ an application program interface (API), executable by the processing unit, to interface with a software application;

wherein the plurality of content repositories and the plurality of workflow systems are distributed and dissimilar, the plurality of content repositories comprising a first content repository and a second content repository, the plurality of workflow systems comprising a first workflow system and a second workflow system; the first content repository, the second content repository, the first workflow system and the second workflow system being distributed and dissimilar;

a plurality of nodes, created using the API first software, wherein the API provides an interface to the plurality of nodes, a first node of the plurality of nodes representing linking to a first work item of a first workflow system ~~of the plurality of workflow systems~~, a second node of the plurality of nodes representing linking to a second work item of a second workflow system ~~of the plurality of workflow systems~~, a third node of the plurality of nodes representing linking to a first queue work organizing structure of the first workflow system, a fourth node of the plurality of nodes representing linking to a second queue work organizing structure of the second workflow system, a fifth node of the plurality of nodes representing linking to a first content of ~~[[a]] the first content repository of said plurality of disparate content repositories,~~ a sixth node of the plurality of nodes representing linking to a second content of ~~[[a]] the second content repository of said plurality of disparate content repositories,~~ a seventh node of the plurality of nodes representing linking to a first folder content organizing structure of the first content repository, and an eighth node of the plurality of nodes representing linking to a second folder content organizing structure of the second

content repository, and a ninth node of the plurality of nodes representing the other external information source;

a plurality of associations, created using the API first software, describing relationships between the first, second, third, fourth, fifth, sixth, seventh, eighth and ninth nodes, each association of said plurality of associations having at least two nodes of the plurality of nodes that are members of said each association, said each association describing a relationship between the members of that association, said each association also being a node of the plurality of nodes, wherein said first, second, third, fourth, fifth, sixth, seventh, ~~and eighth~~ and ninth nodes are members of at least one association of the plurality of associations, wherein said first node ~~linking to said first work item of said first workflow system~~ and said fifth node ~~linking to said first content of said first content repository~~ are related via at least one particular association of said plurality of associations; and

a plurality of locators ~~to reference and de-reference entities external to the first module, said plurality of locators~~ comprising:

_____ a first locator to ~~a first external entity, the first external entity being~~ said first work item of said first workflow system, the first locator leverages workflow integration middleware to reference said first work item of said first workflow system;

_____ a second locator to ~~a second external entity, the second external entity being~~ said second work item of said second workflow system, the second locator leverages said workflow integration middleware to reference said second work item of said second workflow system;

_____ a third locator to ~~a third external entity, the third external entity being~~ the first queue work organizing structure of said first workflow system, the third locator leverages said workflow integration middleware to reference said first queue work organizing structure of said first workflow system ~~[[,]]~~ ;

_____ a fourth locator to ~~a fourth external entity, the fourth external entity being~~ said second queue work organizing structure of said second workflow system, the fourth locator leverages said workflow integration middleware to reference said second queue work organizing structure of said second workflow system;

_____ a fifth locator to a ~~fifth external entity, the fifth external entity being~~ said first content of said first content repository, the fifth locator leverages content integration middleware to reference said first content of said first content repository;

_____ a sixth locator to a ~~sixth external entity, the sixth external entity being~~ said second content of said second content repository, the sixth locator leverages said content integration middleware to reference said second content of said second content repository;

_____ a seventh locator to a ~~seventh external entity, the seventh external entity being~~ said first folder content organizing structure of said first content repository, the seventh locator leverages said content integration middleware to reference said first folder content organizing structure of said first content repository;

_____ an eighth locator to an ~~eighth external entity, the eighth external entity being~~ said second folder content organizing structure of said second content repository, the eighth locator leverages said content integration middleware to reference said second folder content organizing structure of said second content repository; and

_____ an extensible locator interface to provide at least one additional locator to the ~~another~~ external information source;

said ~~module~~ API providing access to the first content, the second content, the first folder, the second folder, the first work item, the second work item, the first queue, the second queue and the external information source ~~said entities via said API~~, wherein said first work item of said first workflow system is accessed via said first node, said first locator and said workflow integration middleware; said second work item of said second workflow system is accessed via said second node, said second locator and said workflow integration middleware; said first queue work organizing structure of said first workflow system is accessed via said third node, said third locator and said workflow integration middleware; said second queue work organizing structure of said second workflow system is accessed via said fourth node, said fourth locator and said workflow integration middleware; said first content of said first content repository is accessed via said fifth node, said fifth locator and said content integration middleware; said second content of said second content repository is accessed via said sixth node, said sixth locator and said content integration middleware; said

first ~~folder content organizing structure~~ of said first content repository is accessed via said seventh node, said seventh locator and said content integration middleware; said second ~~folder content organizing structure~~ of said second content repository is accessed via said eighth node, said eighth locator and said content integration middleware, said external information source is accessed via said ninth node and said ninth locator.

Claim 25 (previously presented): The computer system of claim 24 wherein the API is in a format selected from the group consisting of Java, Component Object Model (COM), Simple Object Protocol (SOAP) Web Services, Representational State Transfer (REST) Web Services, and Web Development Components.

Claim 26 (previously presented): The computer system of claim 24 further comprising at least one of a graphical user interface and a web-based interface.

Claim 27 (currently amended): The computer system of claim 24 wherein ~~said first node represents said first work item, said second node represents said second work item, said third node represents said first work organizing structure, said fourth node represents said second work organizing structure, said fifth node represents said first content, said sixth node represents said second content, said seventh node represents said first content organizing structure, and said eighth node represents said second content organizing structure,~~ said first, second, third, fourth, fifth, sixth, seventh, and eighth and ninth nodes participate participating in said relationships with information, said information for each node of said first, second, third, fourth, fifth, sixth, seventh, and eighth and ninth nodes comprising at least one of: meta-data describing said each node, at least one role played in at least one association of said plurality of associations with another node, zero or more scoped names, a unique identifier of the subject of said each node, and 0 or more node types.

Claim 28 (canceled).

Claim 29 (previously presented): The computer system of claim 24 wherein said each association of said plurality of associations has at least two of said members that are nodes playing a specific named role in said each association.

Claim 30 (previously presented): The computer system of claim 24 wherein a member represents a specific role a node plays in the association.

Claim 31 (previously presented): The computer system of claim 30 wherein the member has a player specifying the node playing the role in the association.

Claim 32 (previously presented): The computer system of claim 24 wherein the associations have 0 or more association types, wherein the association types have logical properties describing the type of the relationship, wherein said logical properties comprise at least one of: an allowed cardinality of the relationship, allowed members of the relationship, required members of the relationship, a transitivity of the relationship, a delete propagation across the relationship, and a save propagation across the relationship.

Claims 33-38 (canceled).

Claim 39 (currently amended): A computer system to provide notification of at least one event handler, comprising:

a processing unit; and

a memory comprising:

~~a module~~ a first application program interface (API), executable by the processing unit, to interface with a software application;

a plurality of subscriptions to a plurality of subscribed-to-items, respectively, wherein the ~~module~~ first API interfaces to the software application to create the plurality of subscriptions; the subscribed-to-items comprising a first content of a first content repository, a first folder ~~content organizing structure~~ of the first content repository, a first work item of a

first queue of a first workflow system, a first ~~queue work organizing structure~~ of the first workflow system, a second content of a second content repository, a second ~~folder content organizing structure~~ of the second content repository, a second work item of a second workflow system, a second ~~queue work organizing structure~~ of the second workflow system;
wherein the first content repository, the second content repository, the first workflow system and the second workflow system are disparate and distributed;

wherein the plurality of subscriptions are requests to track when at least one of an addition, change and delete occurs to any of the subscribed-to-items, respectively, the subscribed-to-items comprising, the first content, the first folder, the first work item, the first queue, the second content, the second folder, the second work item and the second queue; the plurality of subscriptions comprising a first subscription, a second subscription, a third subscription, a fourth subscription, a fifth subscription, a sixth subscription, a seventh subscription, and an eighth subscription; the first subscription to track when at least one of an addition, change and delete occurs to the first content, the second subscription to track when at least one of an addition, change and delete occurs to the first folder, the third subscription to track when at least one of an addition, change and delete occurs to the first work item, the fourth subscription to track when at least one of an addition, change and delete occurs to the first queue, the fifth subscription to track when at least one of an addition, change and delete occurs to the second content, the sixth subscription to track when at least one of an addition, change and delete occurs to the second folder, the seventh subscription to track when at least one of an addition, change and delete occurs to the second work item, the eighth subscription to track when at least one of an addition, change and delete occurs to the second queue; and

an event path defined per a logical group comprising a timer, a subscription group processor that creates events based on the plurality of subscriptions in response to the timer, a content monitor that detects change in the first content, first folder, second content, second folder, first work item, first queue, second work item, and second queue based on the events, an event filter that filters uninteresting change and interesting change based on the change detected by the content monitor, and an event handler that receives the interesting change,
wherein the software application configures the event path via the ~~module~~ first API.

Claim 40 (previously presented): The computer system of claim 39 wherein the timer initiates periodic polling of at least one of the first and second content repositories and the first and second workflow systems to detect the change.

Claim 41 (currently amended): The computer system of claim 39 wherein the plurality of subscriptions are organized into at least one subscription group and the subscription group processor initiates the events on subscriptions of ~~[[a]]~~ the at least one subscription group.

Claim 42 (currently amended): The computer system of claim 39 wherein the content monitor comprises a software plug-in ~~software module~~ to detect the change in the subscribed-to-items.

Claim 43 (currently amended): The computer system of claim 39 wherein the event filter comprises at least one software plug-in ~~module~~ that filters the interesting and uninteresting change in the subscribed-to-items based on a meta-data value of at least one of the subscribed-to-items.

Claim 44 (previously presented): The computer system of claim 39 wherein a subscription context is made available to the content monitor, event filter and event handler with access selected from at least one of: access to a live content integration middleware session, access to a live workflow integration middleware session, access to a statistics reporting API, access to an error reporting API, access to a logging API, and access to an active subscription.

Claim 45 (currently amended): The computer system of claim 39 further comprising a statistics ~~module~~ software to gather runtime statistics on the events passing through the event path and displaying said statistics.

Claims 46-47 (canceled)

Claim 48 (currently amended): A computer-implemented method of virtually organizing content of a plurality of disparate content repositories, ~~folders content organizing structures~~ of the plurality of disparate content repositories, work items of a plurality of disparate workflow systems, and ~~queues work organizing structures~~ of the plurality of disparate workflow systems, comprising:

providing an application ~~programming program~~ interface (API) to a virtual repository;
and

creating the virtual repository via the API, wherein the virtual repository comprises a at least one virtual folder, said at least one virtual folder virtually organizing a first work item of a first queue of a first workflow system of the plurality of disparate workflow systems, the first queue of the first workflow system, a second work item of a second workflow system of the plurality of disparate workflow systems, a second queue of the second workflow system, a first content of a first content repository of the plurality of disparate content repositories, a second content of a second content repository of the plurality of disparate content repositories, a first folder of the first content repository, and a second folder of the second content repository, via a plurality of links comprising a first link, a second link, a third link, a fourth link, a fifth link, a sixth link, a seventh link and an eighth link;

wherein the first workflow system, the second workflow system, the first content repository and the second content repository are distributed and disparate; plurality of nodes,

the [[a]] first link node of the plurality of nodes linking being to the [[a]] first work item of a first workflow system of the plurality of workflow systems, the [[a]] second link node of the plurality of nodes being linking to [[a]] the second work item of a second workflow system of the plurality of workflow systems, a third link node of the plurality of nodes being linking to the first queue a work organizing structure of the first workflow system, a fourth link node of the plurality of nodes being linking to the second queue a work organizing structure of the second workflow system, a fifth link node of the plurality of nodes being linking to [[a]] the first content of a first content repository of said plurality of disparate

~~content repositories, a sixth link node of the plurality of nodes being linking to [[a]] the second content of a second content repository of said plurality of disparate content repositories, a seventh link node of the plurality of nodes being linking to the first folder a content organizing structure of the first content repository, and an eighth link node of the plurality of nodes being linking to the second folder a content organizing structure of the second content repository, wherein the work organizing structure of the first workflow system is one of: a queue and a task list, wherein the work organizing structure of the second workflow system is one of: another queue and another task list, wherein the content organizing structure of the first content repository is a folder, wherein the content organizing structure of the second content repository is another folder, the virtual repository also comprising at least one virtual folder, wherein each said at least one virtual folder is also a node of said plurality of nodes, wherein said first node, said second node, said third node, said fourth node, said fifth node, said sixth node, said seventh node and said eighth node are organized via said at least one virtual folder; and~~

accessing the virtual repository via the API, wherein said first work item of said ~~first workflow system~~ is accessed via the API and the first link ~~said first node~~, said second work item of a ~~second workflow system~~ is accessed via the API and the second link ~~said second node~~, said first queue ~~work organizing structure of the first workflow system~~ is accessed via the API and the third link ~~said third node~~, said second queue ~~work organizing structure of the second workflow system~~ is accessed via the API and the fourth link ~~said fourth node~~, said first content repository is accessed via the API and the fifth link ~~said fifth node~~, said second content of said second content repository is accessed via the API and the sixth link ~~said sixth node~~, said first folder ~~content organizing structure of the first content repository~~ is accessed via the API and the seventh link ~~said seventh node~~, and said second folder ~~content organizing structure of the second content repository~~ is accessed via the API and the eighth link ~~said eighth node~~.

Claim 49 (canceled)

Claim 50 (currently amended): A computer-implemented method of creating rich relationships between content, folders content organizing structures, work items and queues work organizing structures that exist in a plurality of content repositories, a plurality of workflow systems and at least one external information source, comprising:

providing ~~a module~~ an application program interface (API) to interface to a software application ~~to a module~~;

wherein the plurality of content repositories and the plurality of workflow systems are distributed and dissimilar, the plurality of content repositories comprising a first content repository and a second content repository, the plurality of workflow systems comprising a first workflow system and a second workflow system; the first content repository, the second content repository, the first workflow system and the second workflow system being distributed and dissimilar;

creating, via the ~~module~~ API, a plurality of nodes ~~accessible to said module~~, wherein the ~~module~~ API provides access to the plurality of nodes, a first node of the plurality of nodes representing linking to a first work item of a first workflow system of ~~the plurality of workflow systems~~, a second node of the plurality of nodes representing linking to a second work item of a second workflow system of ~~the plurality of workflow systems~~, a third node of the plurality of nodes representing linking to a first queue work organizing structure of the first workflow system, a fourth node of the plurality of nodes representing linking to a second queue work organizing structure of the second workflow system, a fifth node of the plurality of nodes representing linking to a first content of ~~[[a]] the first content repository of said plurality of disparate content repositories~~, a sixth node of the plurality of nodes representing linking to a second content of ~~[[a]] the second content repository of said plurality of disparate content repositories~~, a seventh node of the plurality of nodes representing linking to a first folder content organizing structure of the first content repository, ~~and~~ an eighth node of the plurality of nodes representing linking to a second folder content organizing structure of the second content repository, ~~and a ninth node of the plurality of nodes representing the external information source;~~

creating, via the ~~module~~ API, a plurality of associations describing relationships between the first, second, third, fourth, fifth, sixth, seventh, eighth and ninth nodes, each association of said plurality of associations having at least two nodes of the first, second, third, fourth, fifth, sixth, seventh, eighth, and ninth ~~plurality of~~ nodes that are members of said each association, said each association describing a relationship between the members of that association, said each association also being a node of said plurality of nodes, wherein said first, second, third, fourth, fifth, sixth, seventh, and eighth and ninth nodes are members of at least one association of the plurality of associations, wherein said first node representing linking to said first work item of said first workflow system and said fifth node representing said first content of said first content repository are related via at least one particular association of said plurality of associations; and

providing a plurality of locators ~~to reference and de-reference entities external to the module, said plurality of locators~~ comprising:

_____ a first locator to ~~a first external entity, the first external entity being~~ said first work item of said first workflow system, the first locator leverages workflow integration middleware to reference said first work item of said first workflow system;

_____ a second locator to ~~a second external entity, the second external entity being~~ said second work item, the second locator leverages said workflow integration middleware to reference said second work item from said second workflow system;

_____ a third locator to ~~a third external entity, the third external entity being~~ said first ~~work organizing structure~~ folder of said first workflow system, the third locator leverages said workflow integration middleware to reference said first ~~work organizing structure~~ folder of said first workflow system,

_____ a fourth locator to ~~a fourth external entity, the fourth external entity being~~ said second queue ~~work organizing structure~~, the fourth locator leverages said workflow integration middleware to reference said second queue ~~work organizing structure~~ of said second workflow system;

_____ a fifth locator to a ~~fifth external entity~~, the ~~fifth external entity~~ being said first content of said first content repository, the fifth locator leverages content integration middleware to reference said first content of said first content repository;

_____ a sixth locator to a ~~sixth external entity~~, the ~~sixth external entity~~ being said second content of said second content repository, the sixth locator leverages said content integration middleware to reference said second content of said second content repository;

_____ a seventh locator to a ~~seventh external entity~~, the ~~seventh external entity~~ being said first folder content organizing structure of said first content repository, the seventh locator leverages said content integration middleware to reference said first folder content organizing structure of said first content repository;

_____ an eighth locator to an eighth external entity, the eighth external entity being said second folder content organizing structure, the eighth locator leverages said content integration middleware to reference said second folder content organizing structure of said second content repository; and

_____ an extensible locator interface to provide at least one additional locator to another external information source; and

accessing said first content, second content, first folder, second folder, first work item, second work item, first queue, second queue and external information source entities via said ~~module~~ API, wherein said first work item of said first workflow system is accessed via said first node [[,]] and said first locator ~~and said workflow integration middleware~~; said second work item of said second workflow system is accessed via said second node [[,]] and said second locator ~~and said workflow integration middleware~~; said first queue work organizing structure of said first workflow system is accessed via said third node [[,]] and said third locator ~~and said workflow integration middleware~~; said second queue work organizing structure of said second workflow system is accessed via said fourth node [[,]] and said fourth locator ~~and said workflow integration middleware~~; said first content of said first content repository is accessed via said fifth node [[,]] and said fifth locator ~~and said content integration middleware~~; said second content of said

second content repository is accessed via said sixth node [[,]] and said sixth locator ~~and~~ ~~said content integration middleware~~; said first folder ~~content organizing structure~~ of said first content repository is accessed via said seventh node [[,]] and said seventh locator ~~and~~ ~~said content integration middleware~~; said second folder ~~content organizing structure~~ of said second content repository is accessed via said eighth node [[,]] and said eighth locator ~~and said content integration middleware~~; and said external information source being accessed via said ninth node and said ninth locator.

Claim 51 (canceled)

Claim 52 (currently amended): The computer system of Claim 39 wherein each subscription of the plurality of subscriptions is stored with at least one of: meta-data describing said each subscription, encrypted user credentials, a representation of a state of a subscribed-to-item of said each subscription, and a membership in a logical subscription group.

Claim 53 (original): The computer system of Claim 39 wherein the API is in a format selected from the group consisting of Java, Component Object Model (COM), Simple Object Protocol (SOAP) Web Services, Representational State Transfer (REST) Web Services, and Web Development Components.

Claim 54 (original): The computer system of Claim 39 further comprising at least one of a graphical user interface and a web-based interface.

Claim 55 (currently amended): The computer system of Claim 39 wherein at least two of the subscriptions of the plurality of subscriptions with a common polling interval are organized into a logical group.

Claim 56 (currently amended): The computer system of Claim 39 wherein at least two of the subscriptions of the plurality of subscriptions with a common event path are organized into a logical group.

Claim 57 (currently amended): A computer-implemented method of providing notification of at least one-event handler, comprising:

providing a ~~module~~ a first application program interface (API) to interface with a software application;

creating, via the ~~module~~ first API, a plurality of subscriptions to a plurality of subscribed-to-items, respectively, the subscribed-to-items comprising a first content of a first content repository, a first ~~folder content organizing structure~~ of the first content repository, a first work item of a first workflow system, a first ~~queue work organizing structure~~ of the first workflow system, a second content of a second content repository, a second ~~folder content organizing structure~~ of the second content repository, a second work item of a second workflow system, a second ~~queue work organizing structure~~ of the second workflow system;

wherein the first content repository, the second content repository, the first workflow system and the second workflow system are disparate and distributed;

wherein the subscriptions are requests to track when at least one of an addition, change and delete occurs to any of the subscribed-to-items, respectively, the subscribed-to-items comprising the first content, the first folder, the first work item, the first queue, the second content, the second folder, the second work item and the second queue; the plurality of subscriptions comprising a first subscription, a second subscription, a third subscription, a fourth subscription, a fifth subscription, a sixth subscription, a seventh subscription, and an eighth subscription; the first subscription to track when at least one of an addition, change and delete occurs to the first content, the second subscription to track when at least one of an addition, change and delete occurs to the first folder, the third subscription to track when at least one of an addition, change and delete occurs to the first work item, the fourth subscription to track when at least one of an addition,

change and delete occurs to the first queue, the fifth subscription to track when at least one of an addition, change and delete occurs to the second content, the sixth subscription to track when at least one of an addition, change and delete occurs to the second folder, the seventh subscription to track when at least one of an addition, change and delete occurs to the second work item, the eighth subscription to track when at least one of an addition, change and delete occurs to the second queue;

configuring, via the ~~module~~ first API, an event path defined per a logical group comprising a timer, a subscription group processor that creates events based on the plurality of subscriptions in response to the timer, a content monitor that detects change in the first content, first folder, second content, second folder, first work item, first queue, second work item, and second queue based on the events, an event filter that filters uninteresting change and interesting change based on the change detected by the content monitor; and

receiving, by the event handler, the interesting change.

Claim 58 (original): The computer system of claim 24 wherein the associations have association types, wherein the association types have logical properties describing the type of the relationship, wherein said logical properties comprise an allowed cardinality of the relationship, allowed members of the relationship, required members of the relationship, a transitivity of the relationship, a delete propagation across the relationship, and a save propagation across the relationship.